# A LIST OF BUTTERFLIES COLLECTED IN THE TAVOY DISTRICT, BURMA.

BY

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(With a map and plate).

No systematic collecting appears to have been done in the Tavoy District since Doherty's time and as I have now collected and received specimens for the past ten years, a list of the species taken may be of interest to readers of this journal.

As far as possible I have given exact dates, localities and altitudes of capture. When Doherty visited the district in the eighties there must have been little or no communication with the interior, but now there are several good graded roads, suitable for motor traffic, so that travelling is rapid and comfortable. The accompanying map shows all the good collecting grounds, so far as I am aware of and the roads on which cars can be used. This list does not claim to be a complete one, and only shows the forms that have been received or taken by me.

It will be noticed that most of the collecting was done on hill-tops, and I should advise any one wishing to try Tavoy to keep to this, as on the plains little is to be seen and those mostly of the commonest species. The best collecting grounds are fairly open hill-tops, with evergreen forest, where the sunlight can filter through the foliage, and the best hours for catching are from 11 A.M. to 5 P.M.

These hill tops appear to be general meeting grounds and are frequented by large numbers of butterflies, many of which appear to fly about in an aimless manner, while others of a fighting nature, seem to come there with the sole object of attacking every butterfly that happens to pass within a

limited distance of their resting spots.

The best seasons for collecting are from October to end of December and from the middle of February to end of May. Between June and September it is not possible to do much owing to the heavy rain and the flooded state of the country. In naming the species I have followed Colonel Evans' list of Indian Butterflies, which was published in Vol.XXI of the Society's Journal. I am greatly indebted to Mr. W. S. Wood, of the Bombay Burma Trading Corporation, Ltd., for the help he has rendered me and to whose knowledge of the country is due the little success I have gained. He also personally collected a large number of specimens including many of the rarities shown in this list.

To Colonel W. H. Evans, D.S.O., R.E., I am also much indebted for the help he has given me by identifying a large number of specimens—a task by no means

light.

#### Family—NYMPHALID.E.

#### Subfamily—DANAINÆ.

1. Hestia jasonia agarmarschana, Felder.

Occurs along the coast and up tidal creeks where mangrove swamps exist. Not common anywhere.

2. Danais similis vulgaris, Butler.

Plentiful on Sabataung, 300', during December. It keeps to the lower slopes and flies from October to May.

3. Danais aglea phormion, Fruh.

Common at low elevations as well as on the lower slopes of hills; found at all seasons.

4. Danais eryx agleoides, Felder.

Common at low elevations from November to March; frequents gardens and road-side ditches. Its flight is weak and it settles frequently.

5. Danais gautama, Moore.

A male and two females only secured; the former at Wagon (Kalataung), 1,500' and the latter on Sabataung, 300', in December. It is probably not uncommon, but escapes notice owing to its likeness to *D. vulgaris*, But. Flies from September to March.

6. Danais limniace, Cramer.

Very common everywhere all the year round.

7. Danais melissa septentrionis, Butler.

Common on the plains. Appeared in large numbers during the last week of January 1920 and joined in the flight of *Euplwas*. This flight tasted many days, the direction being S. W.

3. Danais plexippus, L.

Common at low elevations at all seasons.

9. Danais melanippus indicus, Fruh.

A few specimens of both sexes taken on the lower slopes of Sabataung and also at Maungmagan near the sea coast. It is not common and flies from November to March.

10. Danais chrysippus, L.

Apparently rare: one female seen but not secured.

11. Danais melaneus, Cramer.

Plentiful on Kalataung, 1,500', N.-W. of Wagon during December, also found sparingly at Pagaye.

12. Euplæa modesta, Butler.

Common at all elevations and at all seasons. It took part in the flight of January 1920.

13. Euplæa crameri bremeri, Felder.

Fairly common and on the wing all the year round. Found at all elevations up to 2.000. Joined in the flight of January 1920.

14. Euplæa godarti, Luc.

Common at low elevations throughout the district at all times. Females are scarce.

15. Euplæa deione menetriesi, Felder.

A common species found both in the plains and hills. Appeared in great numbers and joined the flight of January 1920.

16. Euplæa mulciber, Cramer.

Very common everywhere and at all elevations. Took part in the flight of January 1920.

17. Euplaa mazares ledereri, Felder.

Rather uncommon; a few specimens taken on Sabataung, 500', and at Maungmagan on the coast; two at Pagaye and one in the Mangrove swamps at Myegaungaine. Flies from November to April.

18. Euplæa corus vitrina, Fruh.

A rare species of which only a pair were secured and a few others seen. It keeps to low elevations frequenting gardens and plantations. The female was taken in Tayoy town on the 9th January 1920 and the male at the foot of Sabataung on the 26th December 1919. Appears to be very local and flies during January and February.

19. Euplea midamus margarita. Butler.

Not uncommon; taken at all elevations throughout the district. Appeared in large numbers and joined in the flight of January 1920.

20. Euplæa klugii crassa, Butler.

Common all over the district and probably flies all the year round. Joined in the flight of January 1920 in great numbers.

21. Euplara diocletianus, Fab.

Males plentiful but females scarce; appears to prefer low elevations and is plentiful along forest roads and clearings in the jungle. It flies all the year round but is most plentiful from November to March.

### Family—NYMPHALIDÆ.

Subfamily—SATYRINÆ.

22. Ypthima huebneri, Kir.

Common all over the district at all seasons.

23. Ypthima savara, Gr.

Common in heavy jungle along streams at the foot of the hills and also on hill tops. Plentiful from November to May.

24. Ypthima baldus, Fab.

Very common everywhere at all seasons.

25. Erites medura falcipennis, DeN.

A few specimens taken in bamboo jungle at low elevations during December and January at Kambauk and Pagaye.

26. Erites rotundata, DeN.

Two males taken at Pagaye in April 1914.

27. Erites angularis, Moore.

Fairly plentiful in bambooo jungle at the foot of the hills but are difficult to take. It flies from September to June and may be seen in fair numbers round about Pagaye and along the Pachaung-Kambauk road.

28. Ragadia crisilda, Hew.

Very common in the streams at the foot of the hills. It has a weak flight and settles frequently and is to be found at all seasons.

29. Ragadia critolaus, DeN.

Not common, flies in company with the above. A few specimens were taken at Yeawing and along the Kalachaung in February 1918.

30. Lethe europa, Fab.

Found sparingly in bamboo jungle on low ground at Pagaye and Talaingya from November to May.

31. Lethe minerva tritogenia, Fruh.

Seven males and four females taken in bamboo jungle at the foot of the hills. I have specimens from Pagaye, Kambauk and Sabataung. This is probably a common species but escapes detection owing to its likeness to L. mekara, Moore. Flies from September to May.

32. Lethe mekara, Moore.

Common at the foot of the hills in bamboo jungle all over the district.

33. Lethe dyrta, Felder.

A few specimens taken at Pagaye during December.

34. Neorina chrishna archaica, Fruh.

This appears to be a rare species as I have received only three males and two females in about nine years. One male was taken at Myekhanbaw and the rest at Pagaye, the former in February and the latter in May. It keeps to the hills and evergreen forest.

35. Coelites epiminthia linghami, Moore.

A very rare species and seldom taken in good condition. Three males and two females taken at Kadantaung and two males and a female at Pagaye, from August to October, in evergreen forest.

36. Mycalesis anaxias, Hew.

Very common on hill-tops from December to February and less so at other seasons.

37. Mycalesis perseus, Fab.

Common all over the district.

38. Mucalesis nerseoides, Moore.

Plentiful at Pagaye and Wagon during November and December at low elevations.

39. Mycalesis mnasicles perna, Fruh.

Not uncommon in bamboo jungle at the foot of the hills.

40. Mycalesis fuscum, Felder. ♂ No. III ♀ No. IV in plate.

Taken sparingly along the streams and in the swamps near Pagayc and Myitta. This butterfly is seldom seen on the wing, as it lies hidden under the "debris" that is left by the streams when the floods have subsided and has to be beaten out. Sometimes they may be flushed from the weeds and scrub that grow along the banks of the streams, but for this it is necessary to be on the spot before sunrise. Good specimens are difficult to secure and females are very scarce. Three males and one female were taken at Myitta, by Wood, in March 1912, and fourteen males and two females were taken in the streams near Pagaye during December and January 1919-20. The best spot for this species is a feeder of the Pauktaungehaung, about a mile East of Pagaye.

41. Mycalesis oroatis surkha, Mar.

Rather a rare species; one female taken at Kadantaung and several males at Sanchaung, 4 miles North of Pagaye, during September and October.

42. Mycalesis meda, Fab.

Common on the hills all the year round.

43. Melanitis leda ismene, Cr.

Common all over and at all seasons.

44. Melanitis phedima bela, Moore.

Does not appear to be so common as the above; a few specimens taken at Pagaye during December.

45. Mycalesis zitenius auletes, Fruh.

A single male taken at the foot of Pagaye hill on 15th December 1919.

Anadebis diademoides, Moore.

This species is not uncommon though very local. It is fairly plentiful in the Ouzinchaung near Kyaukmedaung and at Myekhanbaw; is easy to take as it flies little and settles frequently on twigs and leaves overhanging the streams and is not shy. The colour of the eyes is turquoise in freshly captured specimens but fades after a time to brown.

47. Elymnias hypermnestra tinctoria, Moore.

A common butterfly found at all elevations where palms and canes grow. In most specimens the females have the hind wings suffused with white, but the white varies considerably so that some specimens are indistinguishable from the same sex of *E. undularis*, Drury.

48. Elymnias cottonis obnubila, Mar.

A rare species which keeps to dense jungle where palms and canes grow. Two males and a female taken at Yeawing, 500' on the 22nd February 1919 and three males and a female on Kalataung 1500' on the 23rd December 1919.

49. Elymnias dara dædalion, DeN.

A pair taken on Pagaya hill 500' during November and December. It is a rare species and difficult to catch as it flies high and keeps to dense bamboo jungle.

50. Elymnias malelas saueri, Dist.

A single female taken by Wood at Kadantaung on the 22nd September 1915. This one is very like the female of *E. mılelas*, Hew., on the upper side, though the outer margin of the forewing is prominently toothed near the middle. The underside resembles *E. timundra*, Wall.

51. Elymnias nesaca cortona, Frah.

Plentiful on hill-tops in evergreen forest. Many specimens of both sexes were secured at Pagaye 600' during December and January. They keep to certain localities, fly high and seldom come within reach, but by fixing a net to a specially long bamboo a good number may be taken.

52. Elymnias penanga chelensis, DeN.

A rare species and seldom met with; three males and one female only taken in about nine years, the former on Kalataung 1,700' and the latter, on Nwalabo, 4,500'. It keeps to dense evergreen forest on the hill.

#### Family-NYMPHALIDÆ,

Subfamily—Morphinæ.

53. Clerome arcesilans, Fab.

Common all the year round in damp shady ravines and near streams; also found on jungle paths on elephants' droppings.

54. Xanthotænia busiris, Wd.

Fairly plentiful in swampy ground at the foot of the hills. It does not fly during daylight but can be flushed and taken as it settles after a short flight. It is fairly plentiful in the Pauktaung stream which flows by Pagaye and also at the foot of the hill east of Yeawing. Numerous males but only two females were taken from December to February; flies at all seasons.

55. Thaumantis diores.

Plentiful in evergreen forest from October to June.

6. Thaumantis lucipor, Wd.

Three males taken at low elevations in the Mergui district: two in April and one in December. It has so far not been taken in Tayoy district.

7. Thauria aliris intermedia, Crow.

A male taken at Pagaye in May and a female at Kambauk in October.

58. Stictopthalma godfreyi, Roth.

A pair of this beautiful species taken by Wood; the female at Taungshuntaung on the 17th May 1917 and the male at Kalachaung on the 28th March 1919. It keeps to heavy jungle and is attracted by over-ripe fruit. A description of this species will be found in J. B. N. H. S., Vol. XXVI, part 3, page 867.

59. Zeuxidia amethystus masoni, Moore.

Several males and three females taken at Yeawing, 300', in February 1919, and also at Pagaye and Wagon from December to March. It flies after sunset and may be seen along most of the streams and nalas in dense forest, most plentiful at Yeawing from December to February.

60. Amathusia phidippus, Joh.

This species like the above also flies after dusk and frequents palm groves, gardens and the banks of tidal creeks. I have known it to fly into houses after dark, attracted no doubt by the bright lights; a specimen I have was taken at night in the billiard room of the Tavoy club.

61. Amathusia amythaon, Db.

Males uncommon but females very rare; two males taken at Pagaye in January 1915 and the female at Myekhanbaw in May 1919. This species is generally found in the same locality as Z. masoni but has also been known to fly during daylight.

62. Discophora celinde continentalis, Std.

Not uncommon at low elevations in bamboo jungle. It is a very shy insect and will not permit one to approach; males are often met with, but females appear to be exceedingly rare and I have not succeeded in securing one. The few males I have are larger than either Indian or Andaman specimens and are brighter also; the yellow spots on upper side of forewings being large and bright.

63. Discophora tullia indica, Std.

A common species found everywhere on low ground; it frequents bamboo jungle and also gardens and may be seen about dusk flying in the neighbourhood of habitations. The females oviposit on bamboo leaves.

64. Enispe euthymius, Db.

Appears to be an uncommon species as I have secured only two males, one at Pagaye, 300' on the 17th December 1919 and the other at Myekhanbaw in April 1915. The former has the dark markings very deep and about twice as wide as in any of the Indian specimens I possess, while the usual orange ground colour is overlaid with brown scales, so that the orange colour just shows through.

#### Family—NYMPHALIDÆ.

#### Subfamily-Nymphalinæ.

65. Charaxes polyxena hierax, Felder.

Several males and four females taken at Pagaye, Maungmagan and Myekhanbaw from September to May.

66. Charaxes aristogiton, Fd.

A few males only taken at Pagaye and Wagon from December to April; no females have so far been seen.

67. Charaxes fabius sulphureus, Roth. A single male taken at about 300'.

68. Eulepis athamas, Drury.

Males common along streams at the foot of the hills, but females are searce.

69. Eulepis arja, Felder.

Common ali over along streams.

). Eulepis jalysus, Felder.

An uncommon species; three males only taken; two on Sahataung 600' and one on Kalataung 1,200' in December.

71. Eulepis delphis concha, Wd.

Two males taken at Pagaye in October 1916 and a pair at Kalachaung during April 1916 and 1917 respectively.

72. Eulepis eudamippus, Db.

Fairly common along streams during the summer and on hill-tops during the cooler months.

73. Apatura osteria, Wd.

Males plentiful on the top of the hill at Pagaye 600' and sparingly so on the hill West of Kambauk, but no females were taken or seen at either of these places. The only female secured was eaught on Kalataung, above Wagon at about 1,700' on 22nd December 1919, no males being seen here. In all 33 males were taken in one particular spot, where they were to be seen daily between the hours of 3 to 5 r.m. They seldom come within reach of an ordinary net and keep to the higher branches of the trees; they settle with wings outspread in places where there are patches of sunlight and from these spots fly out and attack any other butterfly that chances to pass along, returning to the same leaf after the struggle. Fresh specimens may be taken from November to January and worn ones up to end of May.

74. Euripus halitherses, Db.

Males plentiful on the hills but females appear to be very scarce. One female of the form Isa taken at Pagaye, at the foot of the hill on 16th December 1919.

75. Stibochiana nicea, Gray.

Apparently a rare species as only one, a male, was taken on Kalataung, 1,700′ on 22nd December 1919. This specimen has the outer white border on the hind wings very wide, about '1" in the middle of the margin, decreasing both ways to the termen and apex. The black central spots are small and crowned with blue inwardly, the post diseal band on the hind wings is not very sinuous but well defined and the blue markings are bright and appear green in certain flights.

76. Adolias dirtea, Fab.

Plentiful all over the district where there is heavy jungle. Tavoy specimens are larger and brighter in colour than those from upcountry, the females in particular being of great size.

77. Euthalia goodrichi, Dist.

Four males and two females taken; a pair at Kalachaung in April, two males and a female at Pagaye in June and a male at Wagon in December.

78. Euthalia derma, Koll.

Three specimens, two males and a female taken at Pagaye at the foot of the hill during December and March.

79. Euthalia dunya, Db.

Fairly plentiful in heavy forest on the hills but most difficult to eatch, as it is extremely wary and has a most irritating habit of allowing one to approach quite close and then flying off just when you are about to make a swoop. It appears to be most plentiful on Kalataung from November to March.

80. Euthalia cocytus, Fab.

Several males and a few females taken at Yeawing, Pagaye, Wagon and Myekhanbaw from December to May. It keeps mostly to the hills in heavy forest.

81. Euthalia lepidea andersoni, Moore.

A very common species found throughout the district in bamboo and scrub jungle, and along forest paths and streams.

82. Euthalia appiades julii, Bougain.

Very common and found in company with E. andersoni; females are rather scarce.

83. Euthalia jahnu, Moore.

Fairly common both in the hills and plains wherever a species of Ageratum grows, on the flowers of which they feed.

34. Euthalia anosia, Moore.

A common butterfly where mango trees grow, on the leaves of which the larvæ appear to feed.

35. Euthalia kesava rangoonensis, Sw.

Common all over the district and flies all the year round.

86. Euthalia phemius, Db.

Five females only taken but no males have been met with; the females are smaller and lighter than Khasi Hills specimens.

87. Enthalia lubentina, Cr.

A common butterfly found all over and at all elevations.

88. Euthalia garuda, Moore.

Very common at low elevations and in gardens where mango trees grow, on the leaves of which the larvæ feed.

89. Euthalia jama, Fd.

Found in the plains as well on the hills, but is not common.

90. Euthalia apicalis, Voll.

Six males only taken during December and January at Pagaye and Wagon.

91. Euthalia kanda, Moore.

A single male taken at Talaingya in February 1917.

92. Parthenos gambrisius, Fab.

Common at low elevations in bamboo and scrub jungle. Though plentiful it is difficult to take as it is a wary creature.

93. Liminitis procris anarta, Moore.

A common species found throughout the district at all elevations.

94. Lebadea martha attenuata, Moore.

Very common at all elevations at all times.

95. Pantoporia nefte nivifera, But.

Males very common but females scarce. This species is found at all elevations but apparently prefers hill-tops, where they may be seen in large numbers. The males are about the most pugnacious of all butterflies and will attack and drive away any others that happen to come, and I found it necessary to catch and destroy all the males I could before settling down to collect.

96. Pantoporia zeroca, Moore.

Two females only taken, one at Maungmagan on 9th April 1914 and the other in Mergui district on 12th November 1919; so far no males have been seen.

97. Pantoporia kresna, Moore.

Plentiful on hill-tops; numerous specimens of both sexes were taken on Pagaye hill 500' and Kalataung, 1,500' to 2,000', during December and January. It is found at all seasons, but is most numerous from November to March.

98. Pantoporia kanwa, Moore.

Males common but females very scarce, on hill-tops, from November to March. Many males and a few females taken at Pagaye, Wagon and Kambauk during December and January.

99. Pantoporia opalina, Koll.

A single male taken on Kalataung 1,700' on 22nd December 1919. This specimen is nearer to the Sikkim form than the N.-W. Himalayan form, so far as the spots and bands on the upper sides of the wings are concerned.

100. Pantoporia perius, L.

Very common at all seasons from about sea level to 1,000', all over the district.

101. Pantoporia larymna, Db.

Four males and three females only taken in about 8 years collecting. It keeps to the higher branches of trees and seldom descends low, which may account for it being so scarce. Specimens have been taken at low elevations as well as on the hills.

102. Pantoporia asura, Moore.

A single female taken at the foot of the hill at Pagaye. This one agrees in every respect with N.-W. Himalayan specimens in my collection.

103. Pantoporia pravara, Moore.

Plentiful on hill-tops in company with *P. kanwa* and *P. kresna*. Many specimens taken at Pagaye, Wagon and Kambauk during December and January.

104. Neptis hylas adara, Moore.

A common species found at all seasons throughout the district.

105. Neptis soma, Moore.

Not uncommon both on the hills and plains at all times of the year.

106. Neptis nata cresina, Moore.

Rather a rare species, found in heavy forest at all elevations. I secured about a dozen specimens; two at Yeawing in February and a few at Pagaye, Sabataung and Wagon during December 1919.

107. Neptis columella martabana, Moore.

Of this species only two males were secured, one on Kalataung 1,500' in December 1919 and one on Pagaye hill 500' in March 1916.

# BUTTERFLIES COLLECTED IN THE TAVOY DISTRICT, BURMA. 891

108. Neptis jumbah, Moore.

A few specimens, in all, taken at Maungmagan. Sabataung, Talaingya and Megyaungain during December, all at low elevations.

109. Neptis harita, Moore.

This is an uncommon species of which only a few were secured. The females are rare. All the specimens secured were taken at Pagaye and Wagon during December.

110. Neptis vikasi pseudovikasi, Moore.

A Common species which keeps to the hills and flies from December to May.

11. Neptis anjana, Moore.

A single male taken in the Kalcianaung Reserve forest in June.

112. Neptis ebusa fuliginosa, Moore.

Several males and a few females taken on the hills at Pagaye, Wagon and Kambauk during December and January.

113. Neptis miah nolana, Druce.

An uncommon species and so far only taken on Pagaye hill, 500', during December.

114. Neptis viraja, Moore.

This is an uncommon species as only four males and two females in all were secured; two males on Pagaye hill, 600' and the rest on Kalataung 1500', in December.

115. Neptis heliodore, Fab.

Plentiful in the hills all over the district. Numerous specimens of both sexes taken during December and January; very plentiful in the latter month.

116. Neptis hordonia, Stell.

Common at all seasons throughout the district.

117. Neptis peraka, Butler.

Common on hill tops from November to March; numerous specimens taken at Pagaye, Wagon, Kambauk and Sabataung during December and January.

118. Neptis aurelia, Std.

Rather uncommon; flies in company with N. peraka and hordonia during December and January but found very sparingly at other times.

119. Cyrestis nivea nivalis, Fd.

Several specimens of both sexes taken during December and January, both on the hills and low grounds. This species comes down to the streams during the hot hours of the day and settles on damp sand.

120. Cyrestis periander, Fab.

Rather more scarce than the above and keeps to the hills. A few males and two females taken on Pagaye hill 600', and on Kalataung 1500' during December 1919.

121. Cyrestis peraka, Dist.

This butterfly keeps to the streams at the foot of the hills in dense jungle. It was very plentiful during January 1920 on the road from Pachaung to Kambauk, at a spot where a stream cut across the road near the 15th mile stone. It has a weak flight and settles frequently on the underside of a leaf, with outstretched wings.

122. Cyrestis risa, Db.

A common species to be seen everywhere and at all times of the year.

3. Cyrestis rahria rahrioides, Moore.

Taken sparingly in company with the above, at Pagaye, during January.

124. Junonia iphita, Cramer.

Common at low elevations.

125. Junonia lemonias, L. Common at the foot of the hills.

126. Junonia hierta, Fab. Common in the plains.

127. Junonia orithyia, L.

Plentiful though not so common as the above.

128. Junonia atlites, Joh.

One of the commonest of butterflies in the plains.

129. Junonia almana, L. Common in the plains.

130. Symbrenthia hippoclus lucina, Cramer.

A few taken on Kalataung, 1,500', towards the end of December 1919.

31. Symbrenthia niphanda, Moore.

A single male secured on Pagaye hill 600' on 16th April 1916.

132. Prothæ francki angelica, Butler.

A rare species found mostly on hill tops in heavy forest. Nine males and a single female taken; four at Yeawing, 400', on 10th May 1919, four on Pagaye hill, 600' in January 1920, and one on Kambauk hill 700' on 19th January 1920. The single female was taken at the foot of Yeawing hill, inside a house, where she no doubt had been attracted by the scent of someripe guavas. This butterfly keeps to very dense forest in places where the gloom is deepest; it flies little and settles frequently, always selecting the bare trunk of a tree. It settles with its head facing upwards, but immediately after turns about and faces downwards. It is not by any means shy and is easy to take when seen, but the colouring on the underside harmonises so well with the moss-covered trunks of the trees that it is by no means easy to spot. It appears to fly from December to May.

133. Rhinopalpa polynice birmana, Fruh.

Rather a scarce species which I personally did not take, but several specimens of both sexes were caught by Wood at Kalachaung and Kedantaung.

It is evidently a gross feeder, as five fresh males were taken in the Kalachaung, feeding on human excreta.

134. Hypolimnas bolina, L.

Common on the plains and some little way up the hills. They do not appear to attain the size of those found in N.-W. India.

135. Hypolimnas misippus, L.

Apparently a rare species as only one male was taken on Pagaye hill, 500', in December 1919.

136. Penthema darlisa, Moore.

Very scarce and seldom met with; two males and one female have so far been secured; the former at Yeawing in May and the female at Pagaye in September. The two males are typical, but in the female the discal series of spots, on the hind wings, are joined to the internervular streaks, which given the latter a clavate appearance. The streak in the submedian interspace is very short, from near the tornus to about half the length of the margin.

137. Doleschallia bisaltide pratipa, Moore.

Males common but females scarce. Keeps to the hills.

138 Kallima inachus limborgi, Moore.

Plentiful at Kadantaung and Myekhanbaw in June, also found near Pagaye in January. Tavoy specimens are brighter than the Indian forms and arevery like the Japanese form.

139. Cynthia erota, Fab.

Rather an uncommon species of which I have secured only three males and two females; the former on Nwalabo hill, 4,500′, in December and the latter on Sabataung, 500′, in the same month. The males are very heavily marked with black, much more so than are the Indian specimens.

140. Issoria sinha, Koll.

Common and generally found at low elevations.

# BUTTERFLIES COLLECTED IN THE TAVOY DISTRICT, BURMA. 893

141. Atella phalanta, Drury.

Rather uncommon, found all the year round.

142. Atella alcippe alcippoides, Moore.

Pentiful on the hills at all seasons. The males when freshly taken have a beautiful purple gloss on the upper side of the wings when held in a certain light.

143. Cirrochroa fasciata, Felder.

One of the commonest of butterflies in the district. It was to be seen in great numbers on Penaichaung hill, 500', two miles N. of Pagaye during December 1919; also on Kalataung, about 1,200', and at the foot of the hill near Pachaung. At the last place it literally swarmed, attracted by the evil smelling ooze from the bed of a stream, also a favourite wallowing place for wild animals. This species is most in evidence during December and January and is found sparingly at other times.

144. Cirrochroa surya, Moore.

Fairly plentiful on the hills during December and January and less so at other seasons.

145. Cirrochroa mithila, Moore.

A very common species, frequenting the hills as well as the plains: Tavoy specimens are hardly distinguishable from the Andaman form Anjira, Moore. It is a thirsty creature and large numbers may be seen during the warmest hours of the day, sucking the moisture from damp patches in the beds of streams.

146. Cirrochroa orissa. & No. II in plate.

Fairly plentiful on the hills near Yeawing, on Kalataung, Pagaye and Pinnechaung. This species is new to the Indian region and was recorded from Borneo. In flight it is almost indistinguishable from Cupha erymanthis-lotis. Sulz, and is probably the reason for it being overlooked by earlier collectors. It is difficult to take as it has an erratic flight and seldom settles. Flies from November to May.

147. Ergolis ariadne, Joh.

Common at low elevations at all seasons.

148. Ergolis merione, Cramer.

Common everywhere in the plains.

149. Laringa castelnaui, Felder.

Males are uncommon but females are rare. It keeps mostly to the hills and is generally found in bamboo jungle. Several males and three females were taken on Pagaye hill, 600', during December and January, a few males and a single female on Kalataung, 1,500', in the latter part of December and a few males at Yeawing, 500', in February.

150. Cethosia biblis, Drury.

A male and two females only taken; the male at Pagaye in January and the females at Myekhanbaw and Kyaukmedaung, respectively, during May. All these specimens are much smaller and darker than the Indian form.

151. Cethosia hypsea hypsina, Fd.

A male taken at Myekhanbaw in May and two females in the Mergui district in December. It appears to be searce as I did not come across any during my visit to Tavoy in 1919.

Family—NYMPHALID.E.

Subfamily—Libythæinæ.

152. Libythea myrrha rama, Moore.

Fairly plentiful at all elevations for the greater part of the year.

#### Family-NEMEOBIDÆ.

153. Zemeros flegyas confucius, Fruh.

Very common both in the hills and plains at all seasons.

154. Taxila thuisto, Hew.

Not common, on the lower slopes of the hills throughout the district.

Taxila haquinus fasciata, Moore.

Common all over the district in heavy jungle.

Abisara neophron, Hew.

Very common in streams at the foot of the hills in dense jungle.

157. Abisara echerius angulata, Moore.

Very common at all seasons, both on the hills and in the plains.

#### Family—PAPILIONIDÆ.

Papilio œacus, Fd.

Common from October to June at all elevations in heavy forest. plentiful along the banks of the stream, that passes by Pagaye, in March attracted there by the flowers of a shrub.

159. Papilio zaleucus, Hew.

Plentiful on Kalataung, 1,500', and on the hill W. of Kambauk, 600'. About 30 males and five females were taken there in two days, 21st and 22nd December 1919. They were attracted here by the flowers of a species of Ageratum as several were taken on the flowers; they were not observed on any other part of the hill, nor did I see any at Pagaye. In examining the series I possess I find that the white areas on the upperside of the hindwings vary considerably, from four white interspaces to one, and in a single specimen there is no white at all, the wing being entirely black. This single specimen is indistinguishable from P. varuna astorion, Wd. On the underside it has white interspaces, but so also has a specimen of P. varuna from Sikkim which is in my collection. I did not meet with P. varuna in Tavoy, so that it is probable that these two are only races of one species.

Pailio aristolochiæ goniopeltis, Roth.

This is not a common butterfly and was taken sparingly at Maungmagan during December 1919.

161. Papilio coon doubledayi, Wall.

A common species found at all elevations in heavy jungle. It is very plentiful from October to May.

162. Papilio neptunus, Guer. No. 1 in plate.

Two males and one female of this rare butterfly were taken. One male at Kalachaung in June 1912, a male at Mergui in April 1914 and a female on Kalataung, 1,700', on 23rd December 1919. This species is new to the Indian region and so far has only been recorded from Borneo, Malacca, Sumatra and Nias. The forewings are black above with pale, almost white, patches between the veins. Hind-wings black, with a discal series of elongate red spots in interspaces 1 to 4. Underside as above, but paler and the red patches much smaller; breast red at the sides; abdomen, fore part black, the rest yellow. The abdominal fold has some grey powdering.

Epanse 3.-3.8, Q-4·1 inches.

Papilio paradoxus telearchus, Hew.

Evidently a rare species as only two males and two females have been taken in about 9 years collecting. A pair were caught at Pagaye in September and a male in October 1914, and a female in the Kaleianaung Forest Reserve in October 1916.

164. Papilio paradoxus d. danisepa, Butler.

Of this beautiful form I secured only three males; one at Wagon in October 1914, one at Yeawing and one at Pagaye, in February and April 1916, respectively. On the wing it appears very like Euplea diocletiana and has the same habit of settling on damp sand.

165. Papilio clytia, L.

Common just before the rains set in. 166. Papilio clytia var. lankeswara, Moore.

A few specimens taken at Talaingya during April.

Papilio clytia var. papone, Wd.

Two males taken at Pagaye in May 1919.

168. Papilio clytia d. dissimilis, L.

Common all over the district from March to June.

Papilio castor mehala, Gr.

Several females but no males taken; flies from December to April. The specimens I have were caught at Pagaye and Kalachaung.

Papilio mahadeva, Moore.

Several specimens of both sexes taken at Pagaye, Wagon, Talaingya and Thingadon between March and October. It is most plentiful just before and during breaks in the rains.

171. Papilio demoleus malayanus, Wall.

A very common butterfly found on the plains and low hills, throughout the year.
172. Papilio demolion, Cramer.

Common in dense forests in the hills and occasionally along streams at the foot of the hills. It has a very rapid flight, is difficult to catch and when caught generally contrives to break off its tails or a goodly part of a wing in the net. It has a regular beat round and round which it goes during the warmest hours of the day.

173. Papilio chaon ducenarius, Fruh.

A few males only taken; one at Myekhanbaw in May, one in Mergui in February and one south of Tavoy in April. It appears to prefer the low country and has not been seen on the hills.

174. Papilio helenus, L.

Males common but females are rare as only one has been taken. It keeps to beds of streams in dense jungle and does not ascend the hills.

175. Papilio polytes, Liun.

Very common all over the district but prefers low elevations. Only two forms of females have been taken, the cyrus, Fab., and stichius, Hüb.

Papilio memnon agenor, L.

Does not appear to be common. Both the tailed and tail-less forms of females have been taken. It keeps to the densely wooded country at the foot of the hills.

177. Papilio palinurus, Fab.

This is not an uncommon species but is difficult to eatch as it flies high

and only occasionally comes within reach.

One male taken at Kambauk in May 1916 and two females at Wagon, 1,000', on 22nd December 1919. It keeps to low elevations and is never seen on the hills.

178. Papilio agetes, Wd.

Four males only taken, one at Pagaye in September, two on Sinbo Sinma in January and October, respectively, and one on Kalataung 1500' in October.

Papilio antiphates, Fab.

A male taken at Maungmagan in April 1914 and a few at Pagaye and Talaingya in January and March respectively.

180. Papilio payeni amphis, Jor.

A single male taken at Kalataung, 1,500', on 3rd November 1919. It appears to be very rare in this district.

181. Papilio sarpedon, L.

Common all over the district and on the wing throughout the year.

182. Papilio eurypylus cheronus, Fruh.

Several males taken at Pagaye from September to January and one female at Wagon, 1,000', in June 1920.

183. Papilio bathycles chiron, Wall.

A single male taken on Sinbo Sinma on 12th November 1918.

184. Papilio agammemnon, L.

Common at all elevations in dense jungle throughout the year.

185. Papilio macareus gyndes, Jor.

Only one male taken on Sinbo Sinma on 11th November 1918.

86. Papilio xenocles kephisos, Fruh.

A few specimens of both sexes taken at Pagaye in September 1914 and at Kalachaung in April 1919.

187. Papilio megarus, Wd.

A very uncommon species of which only two males and a female were taken; a male at Yeawing on February, one at Myekhanbaw and a female at Maungmagan in April. On the wing it looks very like *Danais septentrionis* and may easily be overlooked.

188. Leptocircus curius, Fab.

Rather scarce at the foot of the hills and along streams.

189. Leptocircus meges virescens, But.

Common at low elevations throughout the district in fairly heavy jungle.

#### Family—PIERIDÆ.

190. Leptosia xiphia, Fab.

A common species found at low elevations throughout the district.

1. Delias hyparete ciris, Fruh.

Common both in the plains and on the hills. It is very plentiful during December and January.

192. Delias descombesi leucacantha, Fruh.

Common all over the district from October to June.

193. Delias aglaia beata, Fruh.

This is also very common and flies at all seasons.

194. Prioneris clemanthe, Db.

Males plentiful, but females are rare; numerous males and only one female were taken.

195. Huphina nerissa dapha, Moore.

Very common throughout the district.

196. Huphina nadina, Lucas.

Common in the plains at all seasons.

197. Huphina lea, Db.

Common on the hills all the year round.

98. Appias lyncida hippoides, Moore.

A common species at all elevations and on the wing throughout the year.

199. Appias melania adamsoni, Moore.

Fairly plentiful on the hills especially at Pagaye and Kalataung, but difficult to catch.

200. Appias lade lalassis, Gr. S.

Appears to be a rare species; two males taken on Kalataung, 1,500', on 6th November 1914, and a female on the same hill on 21st December 1919.

201. Appias indra, Moore.

A few specimens taken at Pagaye in February 1919.

## BUTTERFLIES COLLECTED IN THE TAVOY DISTRICT, BURMA, 897

202. Appias lalage lagela, Moore.

Numerous males taken on Kalataung, 1,500', in November 1914, but no females were secured.

203. Ixias pyrene latifasciata, Butler.

A very common species in the plains.

204. Dercas verhueli pallidus, Fruh.

A few taken at Kalachaung along the stream, in April. It may be common but as it has a habit of hiding in dense foliage it is not often seen.

205. Catopsilia pyranthe, L.

206. Catopsilia florella, Fab.

207. Catopsilia crocale, Cramer.

208. Catopsilia pomona, Fab.

The above are common all over the district at low elevations from November to January and again from March to June.

209. Catopsilia scylla, L.

Very common during November and Desember in gardens and in the neighbourhood of villages. It keeps to the plains and may be taken in large numbers on the flowers of a species of *Cosmos* in gardens in the town of Tavoy. The larvæ feed on a species of *Cassia* which grows in cultivated areas. It appears to be single brooded.

210. Terias libythea, Fab.

Common in the plains at all seasons.

211. Terias laeta, Bdl.

Not common; a few specimens taken at Pagaye and Talaingya during June. 212. Terias hecabe, L.

Very common throughout the year both on the hills and plains.

213. Terias sari, Hors.

Common during October all over the district.

214. Terias harina andamana, Moore.

Not common but may be taken at any time of the year. It is found at all elevations.

215. Hebomoia glaucippe, L.

Males common but females are scarce. It keeps to the lower hills and plains and along streams.

216. Pereronia avatar paravatar, DeN.

A few males and one female taken on Kalataung, 1 700', in October. On the wing it is not possible to distinguish it from *Pereronia hippia*, Fab.

217. Pereronia valeria hippia, Fab.

Very common from October to April at all elevations. The female v. livilla is also found but is rare.

(To be continued.)